

# PROTEIN CALCULATOR

---

[Back to the Calculator](#)[Back to Work Pages](#)

---

## Keratin 14 (NP\_000517)

---

### Accepted Sequence

MTTCSRQFTS	SSSMKGSCGI	GGGIGGGSSR	ISSVLGGGSC	RAPSTYGGGL	SVSSSRFSSG	60
GAYGLGGGYG	GGFSSSSSSF	GSFGGGGYGG	GLGAGLGGGF	GGGFAGGDGL	LVGSEKVTMQ	120
NLNDRLASYL	DKVRALEEN	ADLEVKIRDW	YQRQPAEIK	DYSPYFKTIE	DLRNKILTAT	180
VDNANVLLQI	DNARLAADD	RTKYETELNL	RMSVEADING	LRRVLDELTL	ARADLEMQIE	240
SLKEELAYLK	KNHEEEMNAL	RGQVGGDVNV	EMDAAPGVDL	SRILNEMRDQ	YEKMAEKNRK	300
DAEEWFFTKT	EELNREVATN	SELVQSGKSE	ISELRRTMQN	LEIELQSQLS	MKASLENSLE	360
ETKGRYCMQL	AQIQEMIGSV	EEQLAQLRCE	MEQQNQEYKI	LLDVKTRLEQ	EIATYRRLLE	420
GEDAHLSSSQ	FSSGSQSSRD	VTSSSRQIRT	KVMDVHDGKV	VSTHEQVLRT	KN	472

---

**Molecular Weight = 51624.59**

---

*Chris Putnam*  
*cdputnam@scripps.edu*  
*Graduate Student*  
*The Scripps Research Institute*

---

Last Updated: May 26, 1999



Entrez

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Taxonomy

Boo

Search Protein for



Limits

Preview/Index

History

Clipboard

Details



FASTA

Show:

20



File



1: NP\_000517. keratin 14; cytok...[gi:15431310]

BLink, Domains, Links

LOCUS NP\_000517 472 aa linear PRI 20-DEC-2003

DEFINITION keratin 14; cytokeratin 14 [Homo sapiens].

ACCESSION NP\_000517

VERSION NP\_000517.2 GI:15431310

DBSOURCE REFSEQ: accession NM\_000526.3

KEYWORDS .

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (residues 1 to 472)

AUTHORS Schuilenga-Hut, P.H., Vlies, P., Jonkman, M.F., Waanders, E., Buys, C.H. and Scheffer, H.

TITLE Mutation analysis of the entire keratin 5 and 14 genes in patients with epidermolysis bullosa simplex and identification of novel mutations

JOURNAL Hum. Mutat. 21 (4), 447 (2003)

PUBMED 12655565

REMARK GeneRIF: Three novel KRT14 mutations identified in 9 Epidermolysis bullosa simplex patients.

REFERENCE 2 (residues 1 to 472)

AUTHORS McGargill, M.A., Mayerova, D., Stefanski, H.E., Koehn, B., Parke, E.A., Jameson, S.C., Panoskaltsis-Mortari, A. and Hogquist, K.A.

TITLE A spontaneous CD8 T cell-dependent autoimmune disease to an antigen expressed under the human keratin 14 promoter

JOURNAL J. Immunol. 169 (4), 2141-2147 (2002)

PUBMED 12165543

REMARK GeneRIF: A spontaneous CD8 T cell-dependent autoimmune disease to an antigen expressed under the human keratin 14 promoter.

REFERENCE 3 (residues 1 to 472)

AUTHORS Chan, Y., Anton-Lamprecht, I., Yu, Q.C., Jackel, A., Zabel, B., Ernst, J.P. and Fuchs, E.

TITLE A human keratin 14 'knockout': the absence of K14 leads to severe epidermolysis bullosa simplex and a function for an intermediate filament protein

JOURNAL Genes Dev. 8 (21), 2574-2587 (1994)

PUBMED 7525408

REFERENCE 4 (residues 1 to 472)

AUTHORS Stephens, K., Sybert, V.P., Wijsman, E.M., Ehrlich, P. and Spencer, A.

TITLE A keratin 14 mutational hot spot for epidermolysis bullosa simplex, Dowling-Meara: implications for diagnosis

JOURNAL J. Invest. Dermatol. 101 (2), 240-243 (1993)

PUBMED 7688405

REFERENCE 5 (residues 1 to 472)

AUTHORS Hovnanian, A., Pollack, E., Hilal, L., Rochat, A., Prost, C., Barrandon, Y. and Goossens, M.

TITLE A missense mutation in the rod domain of keratin 14 associated with recessive epidermolysis bullosa simplex

JOURNAL Nat. Genet. 3 (4), 327-332 (1993)

PUBMED [7526933](#)  
REFERENCE 6 (residues 1 to 472)  
AUTHORS Bonifas,J.M., Rothman,A.L. and Epstein,E.H. Jr.  
TITLE Epidermolysis bullosa simplex: evidence in two families for keratin gene abnormalities  
JOURNAL Science 254 (5035), 1202-1205 (1991)  
PUBMED [1720261](#)  
REFERENCE 7 (residues 1 to 472)  
AUTHORS Coulombe,P.A., Hutton,M.E., Letai,A., Hebert,A., Paller,A.S. and Fuchs,E.  
TITLE Point mutations in human keratin 14 genes of epidermolysis bullosa simplex patients: genetic and functional analyses  
JOURNAL Cell 66 (6), 1301-1311 (1991)  
PUBMED [1717157](#)  
REFERENCE 8 (residues 1 to 472)  
AUTHORS Rosenberg,M., RayChaudhury,A., Shows,T.B., Le Beau,M.M. and Fuchs,E.  
TITLE A group of type I keratin genes on human chromosome 17: characterization and expression  
JOURNAL Mol. Cell. Biol. 8 (2), 722-736 (1988)  
PUBMED [2451124](#)  
REFERENCE 9 (residues 1 to 472)  
AUTHORS Albers,K. and Fuchs,E.  
TITLE The expression of mutant epidermal keratin cDNAs transfected in simple epithelial and squamous cell carcinoma lines  
JOURNAL J. Cell Biol. 105 (2), 791-806 (1987)  
PUBMED [2442174](#)  
REFERENCE 10 (residues 1 to 472)  
AUTHORS Marchuk,D., McCrohon,S. and Fuchs,E.  
TITLE Complete sequence of a gene encoding a human type I keratin: sequences homologous to enhancer elements in the regulatory region of the gene  
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 82 (6), 1609-1613 (1985)  
PUBMED [2580298](#)  
REFERENCE 11 (residues 1 to 472)  
AUTHORS Marchuk,D., McCrohon,S. and Fuchs,E.  
TITLE Remarkable conservation of structure among intermediate filament genes  
JOURNAL Cell 39 (3 Pt 2), 491-498 (1984)  
PUBMED [6210150](#)  
REFERENCE 12 (residues 1 to 472)  
AUTHORS Hanukoglu,I. and Fuchs,E.  
TITLE The cDNA sequence of a human epidermal keratin: divergence of sequence but conservation of structure among intermediate filament proteins  
JOURNAL Cell 31 (1), 243-252 (1982)  
PUBMED [6186381](#)  
COMMENT REVIEWED REFSEQ: This record has been curated by NCBI staff in collaboration with Michael Rogers. The reference sequence was derived from [J00124.1](#).  
On Sep 5, 2001 this sequence version replaced [gi:4504913](#).  
  
Summary: This gene encodes a member of the keratin family, the most diverse group of intermediate filaments. This gene product, a type I keratin, is usually found as a heterotetramer with two keratin 5 molecules, a type II keratin. Together they form the cytoskeleton of epithelial cells. Mutations in the genes for these keratins are associated with epidermolysis bullosa simplex. At least one pseudogene has been identified at 17p12-p11.  
  
FEATURES Location/Qualifiers

source 1..472  
/organism="Homo sapiens"  
/db\_xref="taxon:9606"  
/chromosome="17"  
/map="17q12-q21"

Protein 1..472  
/product="keratin 14"  
/note="cytokeratin 14"

Region 114..425  
/region\_name="Intermediate filament protein"  
/note="filament"  
/db\_xref="CDD:16593"

CDS 1..472  
/gene="KRT14"  
/coded\_by="NM\_000526.3:62..1480"  
/note="go\_component: intermediate filament [goid 0005882]  
[evidence NR];  
go\_function: structural constituent of cytoskeleton [goid  
0005200] [evidence P];  
go\_process: epidermal differentiation [goid 0008544]  
[evidence E];  
go\_process: cell shape and cell size control [goid  
0007148] [evidence P]"  
/db\_xref="GeneID:3861"  
/db\_xref="LocusID:3861"  
/db\_xref="MIM:148066"

## ORIGIN

```
1 mttcsrqfts sssmkgscgi gggigggssr issvlaggsc rapstygggl svsssrffssg
61 gayglgggyg gffssssssf gsgfgggygg glgaglgggf gggfaggdgl lvgsekvmtmq
121 nlndrlasyl dkvraleean adlevkirdw yqrqrpaek dyspyfktie dlnrkiltat
181 vdnanvllqi dnrarlaaddf rtkyetelnl rmsveading lrrvldeltl aradlemqie
241 slkeelaylk knheeemnal rgqvvgdvvn emdaapgvdl srilnemrdq yekmaeknrk
301 daeewfftkt eelnrevatn selvqsgkse iselrtrmqn leielqsqsl mkaslensle
361 etkgrycmql aqiqemigsv eeqlaqlrce meqqnqeyki lldvktrleq eiatyrrlle
421 gedahlsssq fssgsqssrd vtsssrqirt kvmdvhdgkv vstheqvlrt kn
```

//

[Disclaimer](#) | [Write to the Help Desk](#)  
[NCBI](#) | [NLM](#) | [NIH](#)

Jun 1 2004 07:09:21